



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

REQUEST FOR REHEARING FOR THE APPELLANTS

Ex parte Paul KALAPATHY et al.

**PIPELINED SEARCHES WITH CACHE TABLE**

Serial No. 09/985,763  
Appeal No.: 2008-00013  
Group Art Unit: 2616

In the event that there may be any fees due with respect to the filing of this paper, please charge Deposit Account No. 50-2222.

A handwritten signature in black ink, appearing to read "Peter Flanagan".

Peter Flanagan  
Attorney for Appellants  
Reg. No. 58,178

SQUIRE, SANDERS & DEMPSEY LLP  
8000 Towers Crescent Drive, 14<sup>th</sup> Floor  
Tysons Corner, VA 22182-2700

Atty. Docket: 058268.00097

PCF/dlh

Encls: Request for Rehearing



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re the Appellants:

Confirmation No.: 4336

Paul KALAPATHY et al.

Appeal No.: 2008-00013

Serial Number: 09/985,763

Group Art Unit: 2616

Filed: November 6, 2001

Examiner: Hong Sol CHO

For: PIPELINED SEARCHES WITH CACHE TABLE

REQUEST FOR REHEARING

August 26, 2008

I. INTRODUCTION

This is a Request for Rehearing of the decision of a panel of the Board of Patent Appeals and Interferences (BPAI) dated June 26, 2008, rejecting all of the pending claims.

This Request is being timely filed within two months of the decision of the BPAI.

## II. Basis for Request for Rehearing

It is respectfully submitted that the decision of the honorable board contains several errors, and that consequently rehearing and reconsideration of the rejections is respectfully requested. Specifically, it is respectfully submitted that the BPAI's findings regarding memory 58 of Michels cannot support the rejection of claim 1 (or the other claims), that the alleged motivation with respect to claim 3 (and similar claims) is conclusory, that the absence of admitted prior art should result in reversal or remand of the rejections of claims 22-26, and that the new grounds of rejection of claims 22-26 is incorrect.

### **A. Michels' Memory 58**

Claim 1 is reproduced below, for the honorable board's convenience:

*1. (Original) A table search device comprising:*

*a table having a plurality of entries;*

*a cache having a subset of entries of said plurality of entries of said table; and*

*a search engine configured to search said cache in a first number of search cycles and then search said table in a second number of search cycles based on search results of said cache, said search engine connected to said table and said cache.*

With respect to claim 1, the BPAI appears to have acknowledged that Michels' memory 58 is separate and outside both search engine 68 of Michel and search engine 60 of Michel. Indeed, such a conclusion is the only reasonable conclusion from Figure 3 of Michels. Instead, the BPAI has indicated that memory 58 is part of switching device 50 in

Michels. This appears to be consistent with Column 4, lines 40-42, of Michels' written description. With such factual premises, the rejection cannot be maintained.

Specifically, the claim is particularly limited to "A table search device." Although switching device 50 of Michels may contain a table search device (such as search engine 60 of Michels), the switching device 50 is not itself a table search device. Since the claim specifically states that the table search device comprises the memory, and since Michels' table search device (which would appear to be search engine 60) does not include the memory, as acknowledged by the BPAI, there is no correspondence between what is claimed in the parent application and what is disclosed in Michels. Thus, the rejection is improper and should be reversed.

If the claim had stated "A switching device, comprising" rather than "A table search device, comprising," then the argument above would not be germane and the fact that switching device 50 contains memory would be supportive of the rejection. In the present claim, however, the features, "A table search device, comprising" breathe life and vitality into the claim, more particularly pointing out that a table search device (and not a switching device) is what is being claimed.

### **B. Motivation to Modify**

Claim 3 further limits claim 1, by requiring that "the first number of search cycles is less than said second number of search cycles." Even assuming *arguendo* that there were motivation both to modify the number of search cycles in Michels and to make the number

of search cycles uneven between a first and second number of search cycles (not admitted), that is still not as specific as making the first number of search cycles less than the second number of search cycles.

Furthermore, one of ordinary skill in the art is not properly motivated to make a modification, simply because “it results in nothing but predictable results,” yet that is the only motivation relied-upon in the BPAI’s decision.

As the Supreme Court recently reaffirmed in KSR (relied upon by the BPAI), “[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *In re Kahn*, 441 F. 3d 977, 988 (CA Fed. 2006). It is respectfully submitted that simply stating that results of the modification were predictable falls under the category of “mere conclusory statements,” since it is hard to imagine how modifications to table searching devices could ever yield unpredictable results.

Furthermore, it is clear that this alleged motivation to combine is different from the alleged (and erroneous) motivation to combine asserted in the Office Action and included by the Examiner in the “Grounds of Rejection.” Accordingly, it is respectfully requested that if the BPAI remains persuaded that this new motivation to combine is legally proper, that the BPAI designate the rejection as being based on a new ground of rejection, which will permit Applicants to reopen prosecution so as to have an opportunity to counter this new ground of rejection with either amendments, new arguments, or evidence of

non-obviousness.

### **C. Absence of Admitted Prior Art**

The BPAI appears to have acknowledged that the material from Applicants' own application, relied upon in the rejection of claims 22-25, was not admitted prior art. The BPAI nevertheless argued that because the feature would have been capable of implementation without further detailed explanation, that consequently one of ordinary skill in the art would have been able to make the claimed implementation. With respect to the honorable board, it is respectfully submitted that this is simply an example of an enabling disclosure.

Because the BPAI has acknowledged that the teachings relied-upon in the rejection have not been shown to exist in the prior art or in the knowledge of one of ordinary skill in the art, it is respectfully submitted that the rejection of claims 22-26 has not been supported by evidence of record.

Indeed, it is respectfully submitted that the BPAI's proposal that "such modification ... would have been obvious to one of ordinary skill in the art since it provides an obvious solution for a known problem (integrated circuit vs. discrete components) with predictable results," amounts to a new ground of rejection.

### **D. Response to New Ground of Rejection**

It is respectfully submitted that this new ground of rejection is incorrect, at least as

applied to Michels. As noted above, the “memory” of Michels is the primary memory of the switching device of Michels. Claim 22 requires that the “table” (allegedly corresponding to Michels’ memory) and the “search engine” be embodied on a single substrate.

However, in Michels the memory is the primary memory of the switching device. It would not have been obvious to have integrate the search engine 60 (including binary search engines 68) of Michels with the primary memory of Michels.

It would not have been obvious, at least because such a modification would require a more significant redesign of the router, switch, switching router, or telephone switch (see column 2, lines 55-56, of Michels) into which Michels’ search engine 60 is to be incorporated. Such a more significant redesign would add cost and complexity to the implementation of Michels, which would be contrary to common sense.

Additionally, one of ordinary skill in the art would appreciate various advantages to accrue from the maintenance of a device’s primary memory as a standalone/modular feature of the device. Since memory is frequently available as an “off-the-shelf” item, one of ordinary skill in the art, applying common sense, would be inclined to permit substitution of a device’s primary memory, especially so that failure of memory would not require replacing the entire switching device, but only the memory component.

Appellants acknowledge that limited evidence has been introduced in support of these common sense observations, but it is respectfully submitted that Appellants have not been permitted to develop the record with evidence, since this new ground of rejection was presented for the first time in the decision of the BPAI.

It is, therefore, respectfully requested that the BPAI either indicate claims 22-26 allowable, take Appellants' factual assertions as a given, explicitly designate the ground of rejection as a "new ground of rejection," and/or remand the rejection to the Examiner, so that Applicants can further develop the factual record.



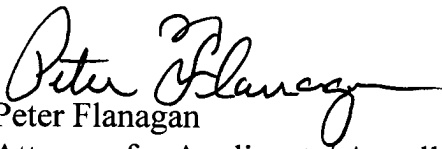
### III. Conclusion

Because the rejections are flawed, because the rejections are not supported by substantial evidence, and because the claims recite subject matter that is neither disclosed nor suggested in the cited art, it is respectfully requested that the honorable board reverse its earlier decision with respect to the patentability of claims 1-25, reverse the Examiner's rejection, and indicate the allowability of the claims.

In the event that this paper is not being timely filed, the Appellants respectfully petitions for an appropriate extension of time. Any fees for such an extension together with any additional fees which may be due with respect to this paper may be charged to Counsel's Deposit Account 50-2222.

Respectfully submitted,

SQUIRE, SANDERS & DEMPSEY LLP

  
Peter Flanagan  
Attorney for Applicants/ Appellants  
Registration No. 58,178

Atty. Docket No.: 058268.00097

8000 Towers Crescent Drive, 14<sup>th</sup> Floor  
Tysons Corner, VA 22182-2700  
Tel: (703) 720-7800  
Fax (703) 720-7802

PCF:dlh